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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,116	11/25/2003	Axel Clausen	12816-102001 / S2654 GC/I	6149
26161	7590	09/12/2005	EXAMINER FLANAGAN, KRISTA M	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			ART UNIT 2817	PAPER NUMBER
DATE MAILED: 09/12/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/721,116

Applicant(s)

CLAUSEN, AXEL

Examiner

Krista M. Flanagan

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-8, 10, 12-14 and 17 is/are allowed.
- 6) ☒ Claim(s) 9 and 11 is/are rejected.
- 7) ☒ Claim(s) 2 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>24 June 2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. In view of the amendment filed on 24 June 2005, the Examiner withdraws objections to the drawings from the previous Office Action.
2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

3. In view of the amendment filed on 24 June 2005, the Examiner withdraws objections to the specification from the previous Office Action.

Claim Objections

4. Claim 15 is objected to because of the following informalities: It is the examiner's opinion that "simulating one of" on line 7 should be replaced with – simulating either- and "a low-pass filter, and" should be replaced with –a low-pass filter, or- on line 8. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The indicated allowability of claims 9 and 11 is withdrawn in view of the newly discovered reference(s) to Schenk. Rejections based on the newly cited reference(s) follow.

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6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 9 and 11 are rejected under 35 U.S.C. 102() as being anticipated by US Patent 6,529,925 to Schenk.

8. Regarding claim 9, Schenk discloses a method for reducing the crest factor of a multi-carrier signal, the method comprising: (a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating transformed multi-carrier signal (See figure 3, block 4); (b) defining a signal-to-be-corrected to be the transformed multi-carrier signal (See figure 3, $y_1 - y_N$ and column 4, lines 58-61); (c) generating a simulated output signal (See figure 3, block 20 and column 5, lines 8-13 where the simulated output could be seen as the outputs that are calculated from the minimum and maximum elements); (d) estimating a signal maximum of the simulated output signal (See figure 3, block 20 and column 5, lines 8-13); (e) deriving a first correction variable on the basis of the estimate (See column 5, lines 8-15); (f) correcting the signal-to-be-corrected using at least the first correction variable, thereby generating a corrected output signal having a reduced crest factor (See column 6, lines 1-20); (g) defining the corrected output signal to be the signal-to-be-corrected; and (h) iteratively repeating steps (c) through (g) until the occurrence of a condition selected from the group consisting of causing the corrected output signal to have a crest factor below a predetermined threshold, and performing a predetermined

number of iterations (See column 8, lines 16-25 where it should be inherent to have iteration as disclosed by adding); the method further comprising reducing a bit width of the transformed multi-carrier signal (Where it should be inherent that bit width would be reduced if peak is reduced as shown in the example given in the reference at columns 5 – 7, where the peak goes from 12 or “1100” to 5 or “101”).

9. Regarding claim 11, Schenk discloses a method for reducing the crest factor of a multi-carrier signal, the method comprising: (a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating transformed multi-carrier signal (See figure 3, block 4); (b) defining a signal-to-be-corrected to be the transformed multi-carrier signal (See figure 3, $y_1 - y_N$ and column 4, lines 58-61); (c) generating a simulated output signal (See figure 3, block 20 and column 5, lines 8-13 where the simulated output could be seen as the outputs that are calculated from the minimum and maximum elements); (d) estimating a signal maximum of the simulated output signal (See figure 3, block 20 and column 5, lines 8-13); (e) deriving a first correction variable by identifying a particular sample point at which the estimate occurs (See column 5, lines 8-15 where the particular sample points are disclosed by Δy_{1k} and Δy_{2k}); (f) correcting the signal-to-be-corrected using at least the first correction variable, thereby generating a corrected output signal having a reduced crest factor (See column 6, lines 1-20); (g) defining the corrected output signal to be the signal-to-be-corrected; and (h) iteratively repeating steps (c) through (g) until the occurrence of a condition selected from the group consisting of causing the corrected output signal to have a crest factor below a predetermined threshold, and performing a predetermined number of iterations (See column 8, lines 16-25 where it should be inherent to have iteration as disclosed by adding).

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Allowable Subject Matter

10. Claims 3-8, 10, 12-14 and 17 are allowed.
11. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista M. Flanagan whose telephone number is (571) 272-2203. The examiner can normally be reached on Monday - Friday, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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